AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Previously Presented) A next process-determining method, comprising:

digitizing a sample object into digital sample data;

compressing the digital sample data into compressed digital sample data having a predetermined data format;

calculating a difference data amount between a data amount of the compressed digital sample data and a data amount of reference data formed by digitizing and compressing a reference sample object in the same manner as the sample object is processed;

identifying which of a plurality of predetermined numerical ranges the difference data amount corresponds to; and

determining a predetermined process associated with the identified numerical range in advance as a next process to be carried out.

2. (Previously Presented) A next process-determining method according to claim 1, wherein the digital sample data is compressed into the compressed digital sample data having the predetermined data format by using a data-compressing method capable of compressing an amount of data at a higher rate as digital data of an identical kind occurs more continuously, or as the digital data has a higher regularity.

3. (Currently Amended) A next process-determining method according to claim 1, wherein the <u>digital</u> sample data ~~is formed by image data obtained by picking up an image of the sample object, the digital sample data being composed of data of pixels formed in picking up the image of~~ <u>comprises image data formed by a plurality of pixel data when imaging</u> the sample object.

4. (Original) A next process-determining method according to claim 3, wherein the reference sample object is changed with a lapse of time.

5. (Previously Presented) A next process-determining method according to claim 3, wherein the compressed digital sample data formed based on an image of the sample object picked up on an immediately preceding occasion is sequentially changed to reference data.

6. (Previously Presented) An inspecting method that picks up an image of an object to be inspected, digitizes the picked-up image to image data formed of pixel data, and determines a next process based on the image data to execute the next process, comprising:

compressing the image data into compressed image data according to a predetermined data format in which an amount of data can be compressed at a higher rate as the pixel data of an identical kind occurs more continuously, or as the pixel data has a higher regularity;

3

calculating a difference data amount between a data amount of the compressed image data and a data amount of reference data formed by digitizing and compressing a reference picked-up image in the same manner as the image of the object to be inspected is processed;

identifying which of a plurality of predetermined numerical ranges the difference data amount belongs to;

determining a predetermined process associated with the identified numerical range in advance as a next process to be carried out; and

carrying out the predetermined process.

7. (Previously Presented) An inspecting apparatus, comprising:

a data processor that processes image data obtained by picking up an image of an object to be inspected and digitizing the picked-up image, according to a predetermined data format in which an amount of data can be compressed at a higher rate as pixel data of an identical kind occurs more continuously in the image data or as the pixel data in the image data has a higher regularity;

a storer that stores a plurality of numerical ranges which are associated in advance with predetermined processes, and a data amount of reference data formed by digitizing and compressing a reference picked-up image in the same manner as the image of the object to be inspected is processed;

a calculator that calculates a difference data amount between a data amount of the image data compressed by said data processor and the data amount of the reference data stored in said storer; and

4

a controller that identifies which of the plurality of numerical ranges stored in said

storer the calculated difference data amount belongs to, and carries out a

predetermined process associated with the identified numerical range as a next process

to be carried out.

8.   (Currently Amended) A next process-determining method according to claim

2, wherein the <u>digital</u> sample data ~~is formed by image data obtained by picking up an~~

~~image of the sample object, the digital data being composed of data of pixels formed in~~

~~picking up the image of~~ <u>comprises image data formed by a plurality of pixel data when</u>

<u>imaging</u> the sample object.

9.   (Previously Presented) A next process-determining method according to claim

8, wherein the reference sample object is changed with a lapse of time.

10. (Previously Presented) A next process-determining method according to

claim 9, wherein the compressed sample data which is formed based on an image of

the sample object picked up on an immediately preceding occasion is sequentially

changed to reference data.